

Abstract

A support structure or sleeve for the spindle of a machine tool consists of a tubular casing, preferably made of sheet steel with a high modulus of elasticity, in contact with a layer of agglomerate obtained by casting inside the casing a mixture formed by a granulate of stone and/or ceramic and/or expanded clay material as well as a synthetic resin of the hardening type, which is subject to cross-linking. The structure thus obtained combines a high vibration damping factor with an excellent mechanical strength and a reduced weight. The structure may also comprise a second casing which is located inside the layer of agglomerate and in contact therewith. The mass of agglomerate may also have, embedded in it, pipes for circulation of a cooling fluid in order to dispose of the heat produced by the spindle during operation.